

## MOUNTAIN AGRICULTURE

Conducted by Prof. Frank S. Montgomery, Instructor in Animal Husbandry, and Special Investigator.

### SOME SUGGESTIONS ON CORN GROWING

We are starting a short series of articles on "Corn Growing" this issue, with the belief that they will help many farmers to raise better corn. These articles come direct from the U. S. Department of Agriculture at Washington and are written by Mr. Jesse M. Jones, field agent for Maryland, West Virginia and Kentucky, who thoroughly understands conditions here in Kentucky. These suggestions are so simple that any schoolboy can follow them. You may not be able to fertilize and manure all the land you need for corn this year, but take one, three, five, or ten acres on which to follow out these instructions, and call upon Mr. Montgomery for any further advice, and next year you will know how to get all the corn you will need from half the ground you have been using, and you will have the rest for grass, cowpeas, oats, etc.

#### Selection of the Land

Ideal soil for corn is a well-drained, deep, loose loam, well supplied with decayed organic matter to hold moisture and possible plant food. This soil is seldom found. Corn is being grown on a greater variety of agricultural soils than any other crop. Many of these soils are too poor to grow corn profitably, but should first be built up. This building up cannot be permanently or profitably done by the use of commercial fertilizers alone, but when rightly combined with manure and legumes, this insures real, legitimate profit.

After the condition of the soil, water is the determining factor in corn production, 350 to 700 pounds being required to make one pound of dry matter.

#### Plowing

Break corn land eight inches deep. This plowing should be done in the fall or winter, unless a cover crop is grown or the land washes, runs together or is thin; otherwise, plow in the early spring, at a time plowing or clods will not occur. If the land has not been broken to the above depth at some former plowing, increase the depth of plowing gradually, by plowing each time not more than two inches deeper in the fall, and one inch deeper in the spring.

In the spring harrow every half day's plowing, to prevent clods. Fall and winter plowing can be left rough during the winter. Sod lands, unless rolling, inclined to pack or thin, are best plowed in the fall or winter. Disking before plowing conserves moisture and tends to prevent clods.

#### The Seed Bed

No amount of cultivation after

planting can make up for neglect in preparing the seed bed. Disk and harrow fall plowing at least twice before planting. Spring plowing will need the same treatment, and often more. Mash any clods present with a plank drag. Harrow the land often enough before planting to keep it soft and moist and destroy young weeds.

#### Fertilizers

The kind and quantity varies with soil characteristics and conditions. Stable manure and turned-under legumes stand first in value, and should be the source of nitrogen. Phosphoric acid pays on almost all soils and potash on many, especially those that are light colored, sandy or thin. Three hundred pounds of 16 per cent acid phosphate and 40 pounds of muriate of potash should give good results. If the potash is not needed, it should not be applied. If soil is deficient in nitrogen and no manure or legumes are used, apply 100 pounds of nitrate of soda broadcast in a row when the corn is 12 to 18 inches high. All fertilizers except nitrate of soda should be applied broadcast and harrowed into the soil when the seed bed is being prepared.

#### Seed Corn

Any pure variety that yields and matures well in the loca should be planted. Use only live, tested seed. Nub and tip all ears before shelling, otherwise the seed can not be evenly dropped by the planter. Never import seed corn for the main crop. If new seed is necessary, get it from some neighbor. When starting with a new variety, get only enough for a small plot. If the variety proves successful, seed can be selected for next year's planting.

#### Time to Plant

Plant as soon as the ground is warm enough for prompt germination, and not before. Early planting generally gives best results. Aim to finish by May 10th.

#### NOTES

It is now too late to sow oats. Better save your oat land for cowpeas or else plant it to corn and then sow cowpeas in corn at last cultivation.

It seems that very little fruit is injured by frost. Spray faithfully this season and very little fruit will be shipped into Berea this winter.

Don't be worried about corn planting. There is nearly a month yet in which to plant and secure a good crop.

What a convenience it would have been if you and your neighbors had graded up your road last fall and kept it smooth all winter with a split log drag. You would thus have had no ruts to jolt over this spring.

### MAKING GOOD GRAVEL ROADS

Enough Crude Oil Is Applied to Make Bed Impervious to Moisture—Roll Down to Suit.

It looks like the bulk of money is larger than the faculty for building. What we want are good roads not for coasting purposes, but for the good of the traveling public. We have had some experience in gravel roads and the best ones are made in this way, says a writer in the Iowa Homestead. We locate the center of a well-formed road bed, then four feet each way from center we open out a gravel bed eight feet wide and twelve or fifteen inches deep, depending on the kind of soil. The road bed is filled with coarse gravel mixed well with clay, or earth, and crude oil

enough to make it a bed impervious to moisture. This bed is well packed for all heavy freight. The surface bed upon this should be of finer gravel about eight or ten inches deep and from the center each way should be from eight to ten feet making a top bed from sixteen to twenty feet wide with the edges well wrapped up with earth. Then the whole is rolled down to suit the form of a good road bed. The oil bed being underneath the seasons will evaporate the oil and harden the finer gravel sides of the road so as to make a fine drive-



Excellent Type of Gravel Road. way for coasting and light traffic.

Plint or limestone is the best. Money is being thrown away by the use of sandstone as a road bed because of the fact that when it is rolled down and crushed into form it is only a short time until the frost has it in such shape that it proves worthless. Never hammer or crush the sand rock. The better form can be made of sandstone by getting the rocks in good building material form to be used only on soft, wet land, laying them in mechanically to make the eight-foot road bed and covering with the oil, clay and shell. Always put the oil bed underneath and in that way save all the fine particles to harden the road bed.

As a rule only a few of us can share the satisfaction of the self satisfied man.

**SHIPP'S**  
Quickly relieves Rheumatism, Sore Muscles, Neuritis, Backache, Headache and all pains. Your money back if it fails to relieve any ache in any part of the body in fifteen minutes.  
Price 50c. At All Druggists.  
Bourbon Remedy Company,  
242 East Main St., Lexington, Ky.

**LINIMENT**



## "THIS IS A HORSE"

He is an Imported Registered French Percheron, weighing 1600 lbs.  
Register No. (6120) B in France, No. 13071 in America.

This is his real picture but not a good one of him. Come and see him before you breed your mares.

We must breed for bigger mares to have bigger mules, as bigger mules bring bigger money, and bigger "money is what makes the mare go."

We need bigger horses and if you breed your little mares to my Percheron horse and the mare brings a horse colt it is worth more at weaning time than a mule would be, and cost no more to raise. If she has a mare colt you are richer than you would be in three years breeding to a Jack.

Now I know any man who has thought about this kind of breeding or any man who will think about it will agree with me.

You know that a big, square, high-headed mule always sells in any market twice as quick as a little, ewe-necked, pony mule, and will bring twice as much money and cost you no more to raise a big mule. But you must first have a big mare. Then come and breed to my big Percheron stallion and reap greater rewards than you have been. I will charge a fee of

### \$10.00 TO INSURE A LIVING COLT

The season will be due when colt is foaled or mare parted with or bred to another horse. Care will be taken to avoid accidents but in no case will I be responsible should any occur.

This horse is no kin to your mare and cross breeding improves the blood and vigor besides the size. From the size of this horse you would be surprised at his style and keen action.

### BRADSHAW BEECHER 5108

Sire, John Morgan Jr. 3705.

Dam, Nannie B. 2653.

Nannie B. is out of a Beecher Jennet and there has never been a family of Jacks and Jennets breed up that will surpass the Beecher and John Morgan family. They are the kind that are the money winners when in the show ring and get the long prices when offered for market.

Bradshaw Beecher is also a great prospect of a Jennet Jack as he is bred right and is right. This handsome bred Jack will make the season of 1914 at the very reasonable fee of \$10.00 for mule, and \$25.00 for Jack or Jennet. To insure a living foal.

(N. B.—My first advertisement in which I advertised a small Jack at a fee of \$8.00 has been canceled and I have secured in his place a very high price Jack which I can offer to the public at the very reasonable fee of \$10.00 only \$2.00 extra, and yet I am offering a 50 per cent better Jack in every respect.)

## Dr. S. R. Baker

Berea,

Kentucky

### PERMANENT AND SOLID FENCES ARE BEST



The man who depends on brush fences in these days of cheap wire and, better yet, stone, deserves no sympathy if his crops are destroyed by the neighbor's cattle. Brush fences are like brush whiskers, they are neither ornamental nor useful. A fine example of the permanency and solidity of the stone fence.

### Flies Breed In Filth.

"If at first you don't succeed, swat again!"

A mild winter and spring pre-empt the early arrival of our bitterest enemies—flies—in vastly increased numbers. Immediate, well directed efforts must be put forth if the threatening dangers are to be minimized. The time to fight flies is before they become flies—when in the egg or when they are maggots.

The problem of elimination of flies is one of elimination of filth. No filth, no flies.

Flies breed in filth, play on filth, eat filth and distribute filth—the filthiest kind of filth. If we do away with

the breeding places of flies there will be no flies.

Therefore the way to swat flies now is to clean up the fly breeding filth.

Clean up, keep clean and see that your neighbors keep likewise, and you will have few, if any, flies to contend with. Of course have your swatter ready for the first arrivals.

Individual glass rooms, with private telephones, will be provided patients recovering from infectious diseases in a new Chicago hospital.

A new soft collar for men or women recently patented in England has loops under the ends through which to pass a necktie for drawing the ends together.

### DIFFERENT TYPES OF ROADS

Much Work Done by Department of Agriculture During the Fiscal Year of 1912-1913.

(Prepared by the United States Department of Agriculture.)

Over four hundred and eighty thousand square yards of different types of roads for experimental and object lesson purposes were constructed during the fiscal year 1912-1913 under the supervision of the office of public roads, United States department of agriculture, according to bulletin 53 of the department, making a total of over four million square yards of road constructed under the supervision of this office since 1905.

The types of roads built were brick, concrete, oil-cement concrete, bituminous concrete, bituminous-surfaced concrete, bituminous macadam, surface treatment, macadam, asphalt-slag, oil-asphalt-gravel, oil-gravel, oil-corrall-lug, gravel-macadam, gravel, slag, sand-clay, sand-gumbo, burnt-clay, shell and earth. The object lesson and experimental work during the past year was done at a cost to the local communities of \$139,841.89. This does not include the salaries and expenses of the department engineers.

The road work during the year was done in Arkansas, Florida, Georgia, Kentucky, Maryland, Mississippi, Nebraska, North Carolina, South Dakota, Tennessee, Texas, Virginia, Wisconsin and the District of Columbia.

#### What Bad Roads Cost.

To carry a ton one mile by sea costs one-tenth of a cent; by railroad, one cent. To haul a ton over good roads costs seven cents a mile; over ordinary country roads, 25 cents a mile. Mud tax and hill-climbing tolls, therefore, amount to 18 cents a mile.

## INTERNATIONAL SUNDAY SCHOOL LESSON

(By E. O. SELLERS, Director of Evening Department, The Moody Bible Institute, Chicago.)

### LESSON FOR APRIL 26

#### THE LOST SHEEP AND THE LOST COIN.

LESSON TEXT—Luke 15:1-10.  
GOLDEN TEXT—"Even so, I say unto you, there is joy in the presence of the angels of God over one sinner that repenteth." Luke 15:10.

I. Introduction, vv. 1-3.—We now come to that chapter in the Bible which contains three of the more celebrated parables of our Lord. In last week's lesson we had set before us the severe terms of discipleship laid down by Jesus to the multitude which followed him as he left the house of the Pharisee. The writer, Luke, makes a close connection between the final admonition about "ears to hear" in chapter 14 and verse 1 of this lesson. Jesus had sifted the crowd though he had left the door open to himself, for he was seeking those who were prepared to share with him in his enterprises of building and of conflict, if they could bear his teaching. This is responded to by those outcast ones, the publicans and the sinners. They had no righteousness of their own, no spiritual hope centered in themselves and they turned eagerly to one who was unqualifiedly honest with them though at the same time he set up heart searching conditions. What a contrast! The grumbling theologians, criticizing and bickering, grieved that he should demean himself by such associates. In reply, Jesus shows them the truth of the fundamental purpose of God's attitude toward these who eagerly sought to "hear," by giving them these parables. In the first two, the sheep and the coin, we see divine love seeking the sinner; in the third, the prodigal, we see the sinner seeking the father. Christ's idea of goodness consists in saving the bad. The Pharisee holds aloof. Christ goes out from among the Pharisees and among the outcasts.

#### True and False Shepherds.

II. The Lost Sheep, vv. 4-7.—The shepherd is God the son (John 10:11, 12; Luke 19:10). He is the "True Shepherd," the Pharisees were false ones. This adds point to the parable; see the Old Testament rebukes for the same, Ex. 34:7-10; Zech. 11:16-17; Jer. 50:6. The lost sheep belongs to the fold, but was out of place. These outcast ones were still Israelites and the backsliding Christian still belongs to the fold. A sinner is a lost sheep. He is away from the care, the protection, the guidance of the shepherd and is torn, bleeding, and "ready to die." One such lost one will call forth the shepherd's utmost endeavor to save it, far beyond the care lavished upon the ninety-and-nine already safe in the fold. This means labor, toil, and privation, and he keeps up the search "until he finds it." This does not mean that all will be saved, see John 17:12, 12 R. V., but every "sheep" that is astray he will find. Once found it rests upon his shoulders, is kept by his power, I Pet. 1:5. Over it he and the father rejoice, vv. 23, 24, 32. There is here the evidence of the interest in the flock which is incomplete and the interest of the owner as well. The safety of the lost one depended upon the shepherd's interest.

#### Work of Holy Spirit.

III. The Lost Coin, vv. 8-10.—These three parables are a unit in the fact that they reveal the attitude of God toward men who are in their deepest need. Each is the story of something being lost and the fact that it is found. The first is a revelation of the son, the last of the father, while this central one sets forth the work of the holy spirit through the church. Rev. 22:17; Eph. 5:25. One of ten coins in this woman's marriage necklace is lost, hence the incompleteness. The spirit will not rest until it is found, nor should the church. The woman takes her lamp—the word of God, Pa. 119:105; Phil. 2:15, 16—and sweeps the house. It has been suggested that sweeping usually stirs up a dust and that some are likely to object. So the world will object when the church of the living God begins to stir up a dust and they are annoyed at any eager search for the lost ones, Acts 17:6. The woman is a suggestion to us in that she sought "diligently," until the lost coin was found. Then she, too, calls in her neighbors that they may rejoice with her. Does the church keep up a like search? And do we know anything about the "joy" of the holy spirit? Gal. 5:22, I Thess. 1:6. Over the wellbeing of the home the woman watches and again the search is in the interest of the owner, and in the interest of the household.

IV. Summary.—The chief value of these two pictures is in their revelation of the work and interest of the son of the spirit. The crowding multitude of publicans and sinners, held in contempt by the Pharisees, Jesus viewed as lost ones. Appalling as this suggestion is, yet the sheep belonged to the shepherd and the coin was the property of the woman. This suggests the dignity and value of men and the tragedy of their condition. Knowing all this and understanding the full significance of that tragedy, the son as the shepherd has undertaken to seek and to save the lost.